Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A micro TPV generator comprising:

a combustion chamber **comprising an internal chamber with an expansion step** configured to generate a significantly even temperature distribution on an outer wall ~~thereof~~ **of the combustion chamber,**

an emitter engaged around or at least in thermal connection to said chamber, and

a photovoltaic cell in proximity to said emitter and configured to generate an electrical current depending on photons incident thereon.

2. (Currently amended) A micro TPV generator as claimed in claim 1 wherein said chamber ~~including~~ **comprises** a platinum catalyst coating **on** an inner wall thereof.

3. (Original) A micro TPV generator as claimed in claim 2 wherein said outer wall is substantially cylindrical.

4. (Currently amended) A micro TPV generator as claimed in claim 3 wherein ~~said chamber including~~ **said expansion step is** a backwards facing step.

5. (Original) A micro TPV generator as claimed in claim 4 wherein said emitter has an emission characteristic matched to the bandgap characteristic of said cell.

6. (Original) A micro TPV generator as claimed in claim 5 wherein said emitter formed of Co-/Ni- doped MgO ribbon or tape.

7. (Original) A micro TPV generator as claimed in claim 5 wherein said emitter formed of SiC.

8. (Original) A micro TPV generator as claimed in claim 5 further comprising a filter between said emitter and said cell configured to pass photons above a threshold and reflect photons under said threshold.

9. (Original) A micro TPV generator as claimed in claim 8 wherein said filter comprising a 9 layers of Si-SiO2 bonded between a glass slide and said cell.

10. (Currently amended) A micro TPV generator as claimed in claim 9 wherein said cell **is** formed from a GaSb based semiconductor.

11. (Currently amended) A micro TPV generator as claimed in claim 1 ~~wherein~~ said chamber having an internal diameter less than 1 mm for hydrogen fuel at compressed pressure.

12. (Currently amended) A micro TPV generator as claimed in claim 1 ~~wherein~~ said chamber having an internal diameter less than 3 mm for propane at atmospheric pressure.

13. (New) A micro TPV generator as claimed in claim 1 wherein said internal chamber comprises a first section and a second section, wherein the cross-sectional width of said first section is greater than the cross-sectional width of said second section to form said expansion step.

14. (New) A micro TPV generator as claimed in claim 1 wherein said internal chamber comprises a first tubular section and a second tubular section, wherein said first tubular

section has a diameter that is greater than the diameter of said second tubular section to form said expansion step.

15. (New) A micro TPV generator as claimed in claim 1 wherein said photovoltaic cell is fabricated from one or more of:

InGaSb,

InGaAsSb.

16. (New) A micro TPV generator as claimed in claim 1 further comprising a micromixer for pre-mixing fuel and air, said micromixer being coupled to said combustion chamber, wherein said combustion chamber comprises porous material for transmitting excess heat from combustion to said micromixer in order to pre-heat air and fuel in said micromixer prior to entering said combustion chamber.

17. (New) A micro TPV generator as claimed in claim 5 wherein said combustion chamber comprises SiC.

18. (New) A micro TPV generator comprising:

a combustion chamber comprising an internal chamber with an expansion step configured to generate a significantly even temperature distribution on an outer wall of the combustion chamber,

an emitter formed as part of said chamber wall, and

a photovoltaic cell in proximity to said emitter and configured to generate an electrical current depending on photons incident thereon.